A summary of influenza surveillance indicators reported to Maryland Department of Health (MDH) for the week ending November 16, 2019

Prepared by the Division of Infectious Disease Surveillance Prevention and Health Promotion Administration Maryland Department of Health

The data presented in this document are provisional and subject to change as additional reports are received. Percentages may not total 100 due to rounding.

SUMMARY

During the week ending November 16, 2019 influenza-like illness (ILI) intensity in Maryland was **LOW** and there was **LOCAL** geographic activity. The proportion of outpatient visits for ILI reported by Sentinel Providers increased. The proportion of outpatient visits for ILI reported by Maryland Emergency Departments also increased. The percent of specimens that tested positive in clinical laboratories this week increased. MDH laboratory confirmed seven influenza positive specimen. Eight influenza-associated hospitalizations were reported. There were no respiratory outbreaks.

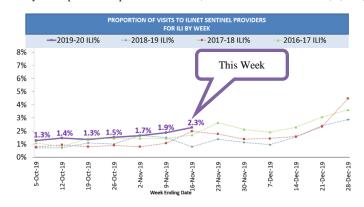
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| I | nfluenza Geographic Activity |
|---|---------------------------------|
| | No Activity |
| | Sporadic |
| | √ Local |
| | Regional |
| | Widespread |

ILINet Sentinel Providers

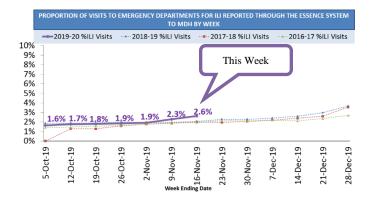
Sixty-seven providers reported a total of 47,071 visits this week. Of those, 1,061 (2.3%) were visits for ILI. This is ABOVE the Maryland baseline of 1.9%.



| ILI Visits To Sentinel Providers By Age Group | This Week Number (%) | Last Week Number (%) | Season Number (%) |
|--|-------------------------|-------------------------|----------------------|
| Age 0-4 | 387 (36%) | 295 (32%) | 1,783 (32%) |
| Age 5-24 | 319 (30%) | 274 (30%) | 1,687 (30%) |
| Age 25-49 | 211 (20%) | 215 (24%) | 1,263 (23%) |
| Age 50-64 | 72 (7%) | 62 (7%) | 496 (9%) |
| $Age \ge 65$ | 72 (7%) | 67 (7%) | 383 (7%) |
| Total | 1,061 (100%) | 913 (100%) | 5,612 (100%) |

Visits to Emergency Departments for ILI

Emergency Departments in Maryland reported a total of 60,086 visits this week through the ESSENCE surveillance system. Of those, 1,568 (2.6%) were visits for ILI.



| ILI Visits To Emergency Departments By Age Group | This Week Number (%) | Last Week Number (%) | Season Number (%) |
|---|-------------------------|-------------------------|----------------------|
| Age 0-4 | 466 (30%) | 352 (28%) | 2,160 (26%) |
| Age 5-24 | 497 (32%) | 388 (31%) | 2,535 (31%) |
| Age 25-49 | 380 (24%) | 345 (27%) | 2,195 (27%) |
| Age 50-64 | 123 (8%) | 107 (8%) | 801 (10%) |
| Age ≥ 65 | 102 (7%) | 79 (6%) | 508 (6%) |
| Total | 1,568 (100%) | 1,271 (100%) | 8199 (100%) |

Neighboring states' influenza information:

Delaware http://dhss.delaware.gov/dph/epi/influenzahome.html

District of Columbia http://doh.dc.gov/service/influenza

Pennsylvania https://www.health.pa.gov/topics/disease/Flu/Pages/Flu.aspx

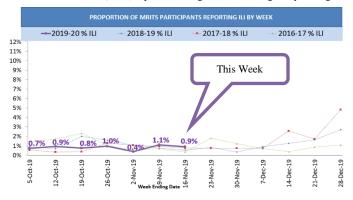
Virginia http://www.vdh.virginia.gov/epidemiology/influenza-flu-in-virginia/influenza-surveillance/

West Virginia http://dhhr.wv.gov/oeps/disease/flu/Pages/fluSurveillance.aspx

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Community-based Influenza Surveillance (MRITS)

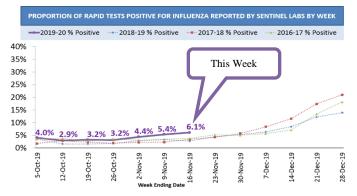
MRITS is the Maryland Resident Influenza Tracking System, a weekly survey for influenza-like illness (ILI). A total of 547 residents responded to the MRITS survey this week. Of those, 5 (0.9%) reported having ILI and missing 7 days of regular daily activities.



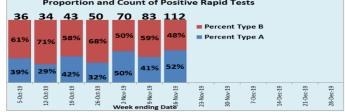
| MRITS Respondents Reporting ILI By Age Group | This Week Number (%) | Last Week Number (%) | Season Number (%) |
|---|-------------------------|-------------------------|----------------------|
| Age 0-4 | 0 (0%) | 1 (17%) | 7 (23%) |
| Age 5-24 | 1 (20%) | 1 (17%) | 3 (10%) |
| Age 25-49 | 1 (20%) | 1 (17%) | 6 (19%) |
| Age 50-64 | 0 (0%) | 2 (33%) | 7 (23%) |
| Age ≥ 65 | 3 (60%) | 1 (17%) | 8 (26%) |
| Total | 5 (100%) | 6 (100%) | 31 (100%) |

Clinical Laboratory Influenza Testing

There were 59 clinical laboratories reporting 1,848 influenza diagnostic tests, mostly rapid influenza diagnostic tests (RIDTs). Of those, 112 (6.1%) were positive for influenza. Of those testing positive, 58 (52%) were influenza Type A and 54 (48%) were influenza Type B. The <u>reliability of RIDTs</u> depends largely on the conditions under which they are used. False-positive (and true-negative) results are more likely to occur when the disease prevalence in the community is low, which is generally at the beginning and end of the influenza season and during the summer.

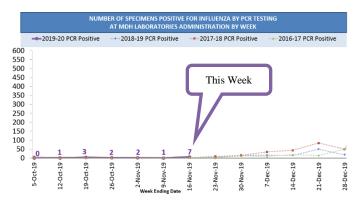


| Positive Rapid Flu Tests by Type | This Week Number (%) | Last Week Number (%) | Season Number (%) |
|--|-------------------------|-------------------------|----------------------|
| Туре А | 58 (52%) | 34 (41%) | 185 (43%) |
| Туре В | 54 (48%) | 49 (59%) | 243 (57%) |
| Total | 112 (100%) | 83 (100%) | 428 (100%) |
| Proportion and Count of Positive Rapid Tests 36 34 43 50 70 83 112 | | | |



State Laboratories Administration Influenza Testing

The MDH Laboratories Administration performed a total of 42 polymerase chain reaction (PCR) tests for influenza and seven tested positive for influenza. PCR testing is more reliable than RIDT. The MDH testing identifies subtypes of influenza A and lineages of influenza B, information that is not available from the RIDT results. The table below summarizes results by type, subtype, and lineage.

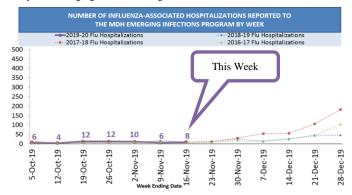


| Positive PCR Tests by Type (Subtype) | This Week Number (%) | Last Week Number (%) | Season Number (%) |
|--|-------------------------|-------------------------|----------------------|
| Type A (H1) | 3 (43%) | 0 (0%) | 5 (31%) |
| Type A (H3) | 0 (0%) | 1 (100%) | 6 (38%) |
| Type B (Victoria) | 3 (43%) | 0 (0%) | 4 (25%) |
| Type B (Yamagata) | 1 (14%) | 0 (0%) | 1 (6%) |
| Dual Type A(H1/H3) | 0 (0%) | 0 (0%) | 0 (0%) |
| Total | 7 (100%) | 1 (100%) | 16 (100%) |

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Influenza-associated Hospitalizations

Eight influenza-associated hospitalization cases were reported this week. (A person with an overnight hospital stay along with a positive influenza test of any kind, e.g., RIDT or PCR, is considered an "influenza-associated hospitalization" for purposes of influenza surveillance.) This surveillance is conducted as a component of the Maryland Emerging Infections Program.



| Influenza- Associated Hospitalizations by Age Group | This Week Number (%) | Last Week Number (%) | Season Number (%) |
|--|-------------------------|-------------------------|----------------------|
| Age 0-4 | 1 (13%) | 2 (33%) | 7 (12%) |
| Age 5-17 | 0 (0%) | 0 (0%) | 2 (3%) |
| Age 18-24 | 1 (13%) | 0 (0%) | 3 (5%) |
| Age 25-49 | 1 (13%) | 1 (17%) | 12 (21%) |
| Age 50-64 | 1 (13%) | 1 (17%) | 6 (10%) |
| Age ≥ 65 | 4 (50%) | 2 (33%) | 28 (48%) |
| Total | 8 (100%) | 6 (100%) | 58 (100%) |

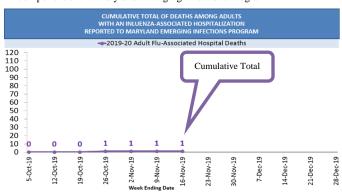
Influenza-associated Deaths

An influenza-associated death is one with a clinically compatible illness and a positive influenza test of any kind.

Pediatric Deaths: No pediatric (< 18 years of age) deaths were reported.

Influenza-associated pediatric mortality is a reportable condition in Maryland. Pediatric deaths are tracked without regard to hospitalization.

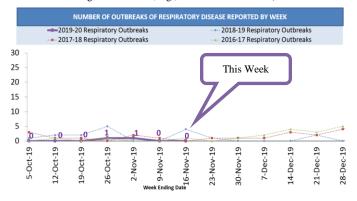
Adult Deaths Among Hospitalized Patients: One death has been reported among adults admitted to Maryland hospitals this influenza season. Influenza-associated adult mortality is *not* a reportable condition in Maryland. However, surveillance for mortality in hospitalized adults is conducted as a component of the Maryland Emerging Infections Program.



| Influenza-Associated Deaths | Cumulative Season Total | |
|--------------------------------------|-------------------------------|--|
| Pediatric Deaths (Age < 18) | 0 | |
| Adult Deaths (in hospitalized cases) | 1 | |

Outbreaks of Respiratory Disease

There were no respiratory outbreaks reported to MDH this week. (Disease outbreaks of any kind are reportable in Maryland. Respiratory outbreaks may be reclassified once a causative agent is detected, e.g., from ILI to influenza.)



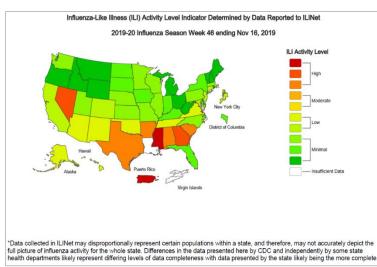
| Respiratory Outbreaks by Type | This Week Number (%) | Last Week Number (%) | Season Number (%) |
|-------------------------------------|-------------------------|-------------------------|----------------------|
| Influenza | 0 (0%) | 0 (0%) | 0 (0%) |
| Influenza-like Illness | 0 (0%) | 0 (0%) | 0 (0%) |
| Pneumonia | 0 (0%) | 0 (0%) | 2 (100%) |
| Other Respiratory | 0 (0%) | 0 (0%) | 0 (0%) |
| Total | 0 (0%) | 0 (0%) | 2 (100%) |

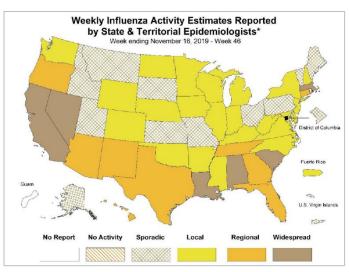
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National Influenza Surveillance (CDC)

Seasonal influenza activity in the United States continues to increase but the amount of activity and the predominant influenza virus varies by region.

- Viral Surveillance: Nationally influenza B/Victoria viruses have been reported more frequently than other influenza viruses this season; followed by A(H1N1)pdm09 and A(H3N2) viruses, which are also circulating in significant numbers. The predominant virus varies by region and age.
- Influenza-like Illness Surveillance: Nationwide during week 46, 2.5% of visits to health care providers were for influenza-like illness (ILI). ILI was above the national baseline of 2.4% for the first time. Four of 10 regions were at or above their baselines.
- O Geographic Spread of Influenza: The number of jurisdictions reporting regional or widespread activity increased from 10 last week to 15 this week.
- Pneumonia and Influenza Mortality: Based on National Center for Health Statistics (NCHS) mortality surveillance data available on November 21, 2019, 5.2% of the deaths occurring during the week ending November 9, 2019 (week 45) were due to P&I.
- O <u>Influenza-associated Pediatric Deaths:</u> One influenza-associated pediatric death was reported to CDC during week 46. The death was associated with an influenza A (H1N1)pdm09 virus and occurred during week 45 (the week ending November 9, 2019).
- Outpatient Illness Surveillance: Nationwide during week 46, 2.5% of patient visits reported through the U.S. Outpatient Influenza-like Illness Surveillance Network (ILINet) were due to influenza-like illness (ILI). This percentage is above the national baseline of 2.4%. (ILI is defined as fever (temperature of 100°F [37.8°C] or greater) and cough and/or sore throat.)
- On a regional level, the percentage of outpatient visits for ILI ranged from 1.4% to 4.4% during week 46. Region 3 (Delaware, the District of Columbia, Maryland, Pennsylvania, Virginia, and West Virginia), Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, and Tennessee), Region 6 (Arkansas, Louisiana, New Mexico, Oklahoma, and Texas), and Region 9 (Arizona, California, Hawaii, and Nevada) reported a percentage of outpatient visits for ILI which is equal to or above their region-specific baselines. Regions 1, 2, 5, 7, 8, and 10 were below their region-specific baselines.





Influenza Activity Levels:

Influenza geographic activity levels are not a measure of severity of influenza in the region or state. These levels serve as a weekly estimate of where influenza could be circulating. Maryland estimates levels of geographic spread and reports them to the Centers for Disease Control and Prevention (CDC) using the following national definitions.

Note: Only laboratory confirmed influenza tests performed at the MDH laboratories administration are used in influenza geographic activity level calculations.

| Influenza Geographic Activity Levels | Definition |
|---|---|
| No Activity | No lab-confirmed cases |
| Sporadic | Small numbers of laboratory-confirmed influenza cases OR a single laboratory confirmed influenza outbreak has been reported, but there is no increase in cases of ILI |
| Local | Increased ILI in 1 region; ILI activity in other regions is not increased and recent (with the past 3 weeks) lab confirmed evidence of influenza in region with increase ILI OR 2 or more institutional outbreaks |
| Regional | Outbreaks of influenza OR increases in ILI and recent laboratory confirmed influenza in at least two but less than half the regions of the state with recent laboratory evidence of influenza in those regions |
| Widespread | Outbreaks of influenza OR increases in ILI cases and recent laboratory-confirmed influenza in at least half the regions of the state with recent laboratory evidence of influenza in the state |

Where to get an influenza vaccination

Interested in getting a flu vaccine for the 2019-20 influenza season? Go to https://phpa.health.maryland.gov/influenza/Pages/getvaccinated.aspx and click on your county/city of residence. You will be redirected to your local health department website for local information on where to get your flu vaccine.